



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

tions afforded good summer food in cheerless winter days. It has long been known that cooked fruits and vegetables, cooked meat and fish, when exposed to warmth and nonsterile air decompose more quickly than the same food will when perfectly fresh and under the same exposure. Fresh unheated foods resist infection longer because of the self-contained aromatic radicals easily released by cell enzymes to preserve the food. Heat-sterilized foods are ideal for the propagation of putrid growths. That is why the manufacturer instructs one to take contents from the can, and if any portion is unused to keep it refrigerated. The heat used in canning destroys nature's protecting agents. Why should not the preservatives be restored to a reasonable extent before sealing after sterilization is complete? The extremists have at times given people to understand that it was possible that salt and other innocent substances which have been used domestically since meats were first preserved would be forbidden to be used by packers. To be consistent the hobbyists should prevent the smoking of hams, bacon, fish, sausage and the like, because of the many empyreumatic products generated and absorbed—creosote, acetic acid and unknown chemical combinations that have given us the harmless and dainty foods for generations. Doctor Eccles says that, strength for strength, in antiseptic power, benzoic and salicylic acids are very much less harmful than salt or vinegar, but our food dictators would hold up their hands in horror if these were put into use.

Perhaps it will now be seen why we fear that progress will be hindered, commerce unreasonably hampered and restricted by unwise theorists who would cling to their shibboleth of law though the nation would starve. If nature's processes are in themselves largely self-preserving and of proven innocence, why cannot there be a greater leeway afforded to manufacturers, who would have to disclose their formulas, and if not generally approved offer themselves up to destructive and ruining criticism.

The burden of this rather excursive consideration of antiseptics may be given briefly: There is no intention of advocating unnecessary and indiscriminate use of antiseptics in the preservation of foods; but also the point is emphasized that if we legally and commercially discourage and make unpopular the study of antiseptics for the purpose mentioned we are absolutely hindering progress. In this day and age, when the transportation of food products immense distances is of vital importance, we should rather offer rewards and encouragement for research of this character than to practically condemn such work by greeting it with chilly indifference and faint praise.

Botanical Notes for 1920.

FRANK U. G. AGRELIUS.

In keeping with our practice for several years, we wish to offer the following items for the year 1920:

UNUSUAL SEASONAL ACTIVITIES OF CERTAIN PLANTS.

Tripsacum dactyloides L. November 13, found a frozen specimen in bloom east of Haskell School, Lawrence. A freeze of about that date had evidently caught it.

Tradescantia sp. September 18, blooming east of Lebo, Kan. (Student.)

Asparagus officinalis L. September 13, new shoots; September 19, new shoots and blooming; September 26, blooming.

Canna sp. October 30, bulb had new roots; October 29, heavy frost.

- Oryzaphus linearis* (Pursh.) Robinson (?). October 6, blooming.
Aquilegia canadensis L. August 9, blooming.
Delphinium ajacis L. October 19, old plants and second growth from this year's seed, blooming; October 25 and 26, blooming.
Lepidum sp. August 24, Old East Lake, blooming.
Capsella bursa-pastoris Moench. October 26; December 21; January 25, 1921; January 29, 1921.
Raphanus sativus L. (White icicle.) August 30, ate second crop radishes, self-sown from this year's seed.
Radicula sinuata (Nutt.) Greene (?). August 24.
Spiraea trilobata L. (*S. van Houttei*). June 24; July 17, 21; August 4; August 9, buds and flowers; August 25 and September 13 and 19, buds and flowers; September 26, buds; September 26, blooming; October 26, blooming.
Spiraea japonica L. (*S. callosa-alba*). October 26, new flowers and buds; October 30 and November 6, new flowers and buds.
Pyrus malus L. (Jonathan). June 8, blooming and putting out second bunch of apples.
Pyrus prunifolia Willd. (?). (Florence crab.) May 27, blooming and putting out second bunch of blossoms.
Pyrus japonica Thunb. May 27, blooming second time this season.
Trifolium repens L. October 26.
Mellilotus officinalis (L.) Lam. August 29, 31; September 1; October 6, 19, 26.
Mellilotus alba Desf. August 24, 31; October 6.
Phaseolus vulgaris L. October 25, second crop of self-sown beans in several stages, including flowers and green fruits.
Linum rigidum Pursh (?). September 1.
Oxalis violacea L. August 29; September 1, 13.
Oxalis stricta L. September 1; October 25.
Pelargonium zonale Willd. October 6, 19, 26, doing well at home out of doors.
Acer saccharinum L. January 30, 1921, pistillate flowers in bloom in Maplewood cemetery; February 16, 1921, both kinds of flowers out in abundance on some trees.
Vitis labrusca L. (Concord.) July 17 and 21, buds; August 4, blooming; August 25, ripe, green and buds on; October 24, second crop of grapes (one bunch) fairly ripe.
Althaea rosea Cav. October 30.
Tamarix gallica L. September 29.
Viola pedatifida G. Don. (?). September 18, east of Lebo. Reported by a student.
Oenothera speciosa Nutt. September 1.
Asclepiodora viridis (Walt.) Gray. August 31.
Mint (gen. and sp. ?). October 30.
Solanum nigrum L. October 30.
Viburnum opulus sterilis. July 17; August 4; August 25, new flower ball; August 30; September 5, 26; October 6.
Erigeron ramosus (Walt.) B. S. P. August 31; October 6.
Lepachys columnaris (Sims) T. & G. September 19, 28.
Achillea millefolium L. September 28.
Taraxacum officinalis Weber. Have bloomed quite strongly at times, but the winter as a whole has been rather unfavorable for this flower. November 6; December 12.

I am indebted to Master Homer Stephens for the data on *Pyrus*.

When only the date is given it is understood that the flower or plant is blooming.

POLYCOTYLEDONY OF *Lycopersicum esculentum* Mill., AND *Ricinus communis* L.

We secured two plants showing tricotyledony from "Earliest of All" seed of the sowing of the spring of 1920. These were planted as far from our regular tomato patch as we could plant them. They were in a potato patch and about seventy-five feet from each other. Several rows of sweet corn separated them from the other patch. Our endeavor was to provide somewhat for self-pollination. We secured some seed from these.

We also secured two plants from seeds of tricots of the 1919 crop of our own growing. We have seed from these plants also.

So far we cannot see that we have gained anything in the way of an increased ratio of tricots in the tomatoes. However, the plants have not been as well selfed as this year. We expect to continue this experiment with the tomato.

We note the following facts concerning the work with the castor bean: We planted 265 seeds left over from a tricot of 1918. One of these was a tricot. Out of 62 seeds from the 1919 crop, which were second-generation tricots, there were three tricots. The respective ratios are 264-1 and a little better than 20-1 (59-3). This shows a considerable gain. This year for the first time we have destroyed all other plants of castor beans on the place, and hence can expect a fair certainty of self-pollination, at least as to blood. There were no plants of this kind near our place, so far as we could ascertain. We await with interest the outcome of the coming year's test. We have an abundance of seed from this year's plants for use.

An interesting fact observed on some of the plants this year was that the 120-degree angle between the three cotyledons was continued for at least two nodes up the stem. This would indicate that the polycotyledony was certainly in the blood of the plant, so to speak, and points to better results for the future.

HERMAPHRODITISM IN THE AUSTRIAN PINE.

On May 16, 1920, we observed a strobile or cone of an Austrian pine in Maplewood cemetery, the upper third of which is pistillate and the rest staminate. We do not know how common this may be, but we have no recollection of having observed such a phenomenon before. We have the specimen preserved in formaldehyde.

Archæology of the Tuba-Kayenta Region.

(CONTINUED FROM 1919.)

ALBERT B. REAGAN.

The archæological work in the field in 1920 covered a larger area than in 1919. This work verified former conclusions:

1. The Navajo is a product of absorption of other tribes, the nucleus being an Athapascan stock, evidently of the Apache branch of that family. Moreover, the Navajo stock, as we know it, is in the same region to-day that it grew up in, so to speak. In other words, it has never occupied any other region, though the Apache stock from which its nucleus sprang undoubtedly did, probably coming from the north.

2. The Utes, Piutes, and probably the Shoshonean Indians, have undoubtedly played an important rôle in this region in both remote and recent time, the present Hopis being of Shoshonean stock.

3. The intensive farming and use of water for irrigation and the reservoiring of every side mountain canyon for village use and for irrigation caused the master streams to be filled up and the valleys to be aggraded, a process which continued even to our own time. Professor Gregory¹ says a lack of rainfall

1. See Gregory, Herbert E.; *Geology of the Navajo country*: U. S. Geol. Prof. Paper 93, pp. 130-132.